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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/607,923
Filing Date: June 27, 2003
Appellant(s): BENTIVOGLIO ET AL.

Phillip R. Warn, Reg. No. 32,775
Gregory L. Ozga, Reg. No. 53,425
For Appellant

EXAMINER'S ANSWER

This is in response to the supplemental appeal brief filed October 10, 2006 appealing
from the Office action mailed September 21, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,880,538	SCHULZ	3-1999
5,820,245	DESMOND et al.	10-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

- a. Claims 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245).
- b. SCHULZ discloses a switch having:
 - **at least one sensor (as recited in Claim 11)**, Figure 1, reference number 2;
 - **an evaluation electronics unit (as recited in Claim 11)**, as seen in Figure 1;
 - **the electronic unit being operably associated with the sensor (as recited in Claim 11)**, as evidenced by Figure 1;
 - **the electronics unit initiating at least one switching process (as recited in Claim 11)**, column 3, lines 5-11;

- **the switching process being based on the approach of a non metallic object toward the sensor (as recited in Claim 11),** column 4, lines 53-56;
- **the electronics unit generates a turn-on signal from a first approach (as recited in Claim 12),** as evidenced in column 4, lines 54-59;
- **the electronics unit generates a turn-off signal from a second approach (as recited in Claim 12),** as evidenced in column 4, lines 54-59;
- **the sensor being provided with a preferred directivity (as recited in Claim 19),** inherent, as any sensor has a given directivity;
- **the sensor being provided with a sensitivity adjustment (as recited in Claim 20),** as evidenced by Figure 1;
- **the sensitivity adjustment being used to set the length of the desired approach distance (as recited in Claim 20),** inherent; and
- **the electronics unit initiating the switching process based on the force-free touch of a non metallic object (as recited in Claim 21),** as evidenced by column 4, lines 53-56.

- c. SCHULZ discloses all the limitations of the claims, except:
 - a mirror housing of an automotive interior mirror module (as recited in Claim 11);
 - the sensor and evaluation electronics being disposed in the mirror housing (as recited in Claim 11); and
 - the sensor being located in the lower corner region of the housing facing a driver (as recited in Claim 22).
- d. DESMOND et al. discloses a vehicle illumination device having :
 - **a mirror housing of an automotive interior mirror module (as recited in Claim 11)**, Figure 6, reference number 11;
 - **a switch**, Figure 10, reference numbers 27 and 29;
 - **the switch being disposed in the mirror housing (as recited in Claim 11)**, column 4, lines 37-40;
 - **an electronic unit disposed in the mirror housing (as recited in Claim 11)**, Figure 10, reference number 32; and
 - **the switch being located in the lower corner region of the housing facing a driver (as recited in Claim 22)**, as seen in Figure 1.
- e. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the non-contact switch of SCHULZ and the vehicle illumination device of DESMOND et al. to equip such illumination

device with a switch capable of being operated by the approaching hand of a user, as per the teachings of SCHULZ (see column 2, lines 24-29).

(10) Response to Argument

- a. It is further noted that the Appellant has failed to identify the subject matter summarized in the "*Summary of the Claimed Subject Matter*" section as being recited by independent Claim 11. However, since independent Claim 11 is the only independent claim in the instant application, it is assumed that this summary of the claimed subject matter refers to Claim 11.
- b. Regarding the Examiner's rejection of **Claim 11** under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245), the Appellant argues (in page 8, lines 10-18) that the cited references are not properly combinable, since SCHULZ only discloses a switching mechanism for the exterior of a vehicle and fails to teach or suggest such switching mechanism as being used with interior components, while DESMOND only shows manual push button switches in an interior rear view mirror illumination device. The Appellant further provided a declaration by Mr. Volker Zipf (one of the inventors) stating that SCHULZ and DESMOND et al. would not be combinable to arrive at the claimed invention (see sections 5-10 of the Declaration).

c. In response to Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, while the Appellant might be correct in that neither SCHULZ nor DESMOND et al. disclose individually all the features of the claimed invention, such references do, in light of the knowledge available to one of ordinary skill in the art at the time the invention was made, suggest the instant invention.

SCHULZ teaches a capacitive proximity switch circuit for a variety of control system applications (column 1, lines 6-10), such switch circuit including a sensor having an operating electrode 2 and a compensating electrode 3, and evaluation electronics (see Figure 1) for changing the switching state only when the operating body approaches the sensor, not when such body moves away (column 2, lines 24-29). For the purposes of describing the patented switch circuit, SCHULZ discusses the capacitive proximity switch circuit as used to unlock vehicle doors and states that one of ordinary skill in the art would appreciate that the invention is not limited to such exemplary application (column 2, lines 46-53).

DESMOND, on the other hand, discloses an interior rear view mirror assembly 10 including a mirror base 17, a plurality of reading lamps 63 and 78, such lamps turned ON and OFF by switches 27 and 29. See Figures 6 and 10.

Using the patented switch structure of SCHULZ would have flown naturally to one of ordinary skill in the art where activation of a circuit without actual physical contact was required or advantageous, such as in low ambient light conditions (when small conventional switches are hardly visible), or when the vehicle was in motion (when small conventional switches are difficult to target). SCHULZ states such fact in column 2, lines 46-53.

d. Regarding the Declaration of the inventor Volker Zipf, which is inherently from a biased party, such declaration was considered insufficient to overcome the rejection of Claim 11 under 35 U.S.C. 103(a) as unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245) as set forth in the last Office action because the affidavit merely provides a short summary of the disclosure of the cited references (see sections 6 and 7), and finally concludes that combining such references would not be obvious (see section 10), without providing facts or any rationale for the non-obviousness opinion. In addition, the affiant incorrectly characterizes the patented structure of SCHULZ as a switch for exterior vehicle applications (see section 6, lines 1 and 2).

e. In response to Appellant's argument that there is no suggestion to combine the teachings of SCHULZ and DESMOND et al., the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the patented switch structure of SCHULZ to activate the reading lamps of DESMOND et al., to be able to operate such lamps without actually touching them, such feature being specifically advantageous in low ambient light conditions (when the small operative portions of conventional switches are hardly visible), or when the vehicle was in motion (when small conventional switches are difficult to target), as suggested by SCHULZ, or by the knowledge generally available to one of ordinary skill in the art.

f. Regarding the Examiner's rejection of **Claim 12** under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245), the Appellant argues (in page 13, lines 23-25) that the cited references fail to disclose, or even suggest, the evaluation electronics generating an ON signal from a first approach and an OFF signal from a second approach. The Appellant further argues (in page 13, line 26 through page 14, line 6) that SCHULZ teaches away from the claimed invention as the act of removing a hand from the operating electrode would be a second approach that would not generate a change in the patented circuit of SCHULZ.

g. In response to Appellant's argument that SCHULZ and DESMOND et al. fail to disclose, or even suggest, the evaluation electronics generating an ON signal from a first approach and an OFF signal from a second approach, attention is respectfully directed to column 4, lines 53-59 of SCHULZ.

In particular, SCHULZ states that the patented switch circuit only changes its switching state when a user's hand approaches the operating electrode, and that the switching state remains unchanged when the hand is removed from the vicinity of the electrode. Such switching arrangement is recognized in the art as being a toggle switching system, such toggle switching system changing state only when approached by the user's hand. That is, a first approach would turn the circuit ON, while a second approach would turn it OFF. Such toggle switching system not only meets the limitations as claimed, but also as described by the specification as filed. However, even if "second approach" was considered to include removal of the user's hand from the vicinity of the electrode, as Appellant now argues, Claim 12 would still be unpatentable over SCHULZ and DESMOND et al., since SCHULZ specifically describes such switching arrangement as being the normal mode of operation of the capacitive switches that are known in the art. See column 2, lines 13-29.

h. Regarding the Examiner's rejection of **Claim 20** under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245), the Appellant argues (in page 14, line 23 through page 15,

line 2) that the cited references fail to disclose all the features of the claimed invention, specifically the sensor being provided with a sensitivity adjustment to set the length of the approach distance for activating the switch circuit.

i. In response to Appellant's argument that SCHULZ and DESMOND et al. fail to disclose, or even suggest, the sensor being provided with a sensitivity adjustment, attention is respectfully directed to Figure 1 of SCHULZ.

One of ordinary skill in the art would have recognized that adjusting the value of one of resistors 10, 11 and 14 would have changed the activation threshold (i.e. sensitivity) of the patented switch circuit of SCHULZ. In addition, it is noted that the specification as filed fails to disclose any specifics regarding the instant sensitivity adjustment means, such fact evidencing the old and well known in the art status of the claimed sensor sensitivity adjustment structure.

j. Regarding the Examiner's rejection of **Claim 22** under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245), the Appellant argues that the cited reference fails to disclose all the features of the claimed invention, specifically the sensor being located in the lower corner region of the housing facing the driver.

k. In response to Appellant's argument that SCHULZ and DESMOND et al. fail to disclose, or even suggest, the sensor being located in the lower corner

region of the housing facing the driver, attention is respectfully directed to Figure 1 of DESMOND et al.

As previously stated, DESMOND et al. shows an interior rear view mirror housing 10 including a plurality of reading lamps 63 and 78, and a corresponding plurality of switches 27 and 29, such switches turning the reading lamps ON and OFF. While the switches 27 and 29 are located inside of the mirror housing 10, their corresponding operative portions (unnumbered) protrude from the housing 10 through recesses 48 and 50. The operative portions of switches 27 and 29 are located in the lower corner regions of the housing in proximity to the reading lamps each switch activates, the switch 27 is located in the lower corner region facing the driver, while the switch 28 is located in the lower corner region facing a passenger.

Replacing the switches 27 and 29 of DESMOND et al. with the capacitive proximity switch circuit of SCHULZ would have been an obvious modification, as previously detailed, the resulting structure locating the sensor of SCHULZ in the same position as the switches 27 and 29 of DESMOND et al. (i.e. in the lower corner region of the housing), as such location provides an intuitive and easy to trigger location.

I. It is noted that the Appellant has not separately argued the limitations presented by claims 13-19.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

(12) Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Ismael Negron, Examiner

Conferees:



Drew Dunn, SPE



Renee Luebke, Trainer